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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PIZARRO, RICARDO M

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,859

Applicant(s)

MOLNO ET AL.

Examiner

Ricardo M. Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-18, 22, 23 and 28 is/are rejected.
- 7) ☒ Claim(s) 10-12, 19-21 and 24-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 6-7, 10-27 are objected to because of the following informalities and it is suggested to applicant :

In claim 6 line 32 delete “the”

In claim 7 line 2 delete “the”.

In claim 10 line 3 delete “the”

In claim 11 line 2 insert “same” before-timeslot-.

In claim 14 line 4 delete “the”.

In claim 16 line 1 delete “the”.

In claim 18 line 1 delete “the”.

In claim 21 line 2 insert “first logical control channel” before –for transmission-..

In claim 24 line 4 delete “the”.

In claim 25 line 2 insert “same” before –timeslot-.

In claim 26 insert “same” before –timeslot-.

In claim 27 line 2 insert “same” before -timeslot-.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 8-9 are rejected under 35 U.S.C. 102(a) as being anticipated by Barany et al. US patent No. 6,584,084 (Barany al) discloses an expanded carrier capacity in a mobile communications system, including a method for allocating user dedicated control channels on an available radio channel resource (multiframe in Fig. 16A, 16B, 17) for transmission of control signals, wherein a first delay sensitive user application (i.e. speech col 4 line 27) and at least a second user application, (data) which is less delay sensitive than the first user application(data less sensitive than speech), are assigned for user data transmissions on a packet data traffic channel, the method comprising the steps of: allocating a first logical control channel associated with the first user application on a first part of the available radio channel resource (i.e. allocation of channel 25 PFCCH in Fig. 16 A) ; and allocating a second logical control channel associated with the at least second user application on a second part of the available radio channel resource (i.e. allocation of channel 12 PTCCH in Fig. 16A) , as in claim 1; said first logical channel is allocated in said available resource according to a first repetition pattern (i.e. reuse pattern 3/9 col 14 line 30), as in claim 8; said second logical channel is allocated in said available resource according to a second repetition pattern (i.e. reuse pattern 1/3 col 14 line 34), as in claim 9.

4. Claim 14-15, 22-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Barany et al.

US patent No. 6,584,084 (Barany al) discloses an expanded carrier capacity in a mobile communications system including a packet data communication system comprising: a plurality of base stations for radio communication with mobile stations (Plurality of base stations 18 in

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Fig. 1A) of user data over packet data traffic channels; a radio transmission control node for controlling the operation of said plurality of base stations (node 35 in Fig. 1A , col 4 lines 17-18) ; and a scheduler associated with each of the plurality of base stations, { scheduler means includes data traffic controller 40 and primary traffic system controller 42 in Fig. 1A, col 9 lines 8 and 14) wherein the scheduler operates to: allocate a first logical control channel associated with a first user application on a first part of an available radio channel resource(Controller 42 allocated circuit switched data i.e. speech); and allocate a second logical control channel associated with at least a second user application on a second part of the available radio channel resource(Controller 40 allocates packet switched data, col 13 col 12 -13) , wherein the at least second user application is less delay sensitive than the first user application (data being less sensitive than speech), as in claim 14; wherein said radio transmission control node is a station control node (col 4 lines 17-18), as in claim 15; wherein said scheduler further operates to: allocate said first logical control channel on said available radio channel resource according to a first predetermined repetition pattern within a superframe structure (i.e. reuse pattern 3/9 col 14 line 30), as in claim 22; wherein said scheduler further operates to: allocate said second logical control channel on said available radio channel resource according to a second predetermined repetition pattern within said superframe structure (reuse pattern 1/3 col 14 line 34), as in claim 23.

5. Claim 28 is rejected under 35 U.S.C. 102(a) as being anticipated by Barany et al.

A method in a packet data communication system for allocating logical control channels associated with logical traffic channels, on an available radio channel resource for transmission

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of control signals (multiframe in Fig. 16 A, 16B,17) the method comprising the steps of:
allocating a first logical control channel on a first part of the available radio channel resource
(i.e. allocation of channel 25 PFCCH in Fig. 16 a); and allocating a second logical control
channel on a second part of the available radio channel resource (i.e. allocation of channel 12
PTCCH in Fig. 16A), wherein the first logical control channel is associated with a logical traffic
channel for carrying user data of a delay sensitive application (ie. Speech)and the second
logical control channel is associated with at least a logical traffic channel for carrying user data
of a non-delay sensitive application (data less sensitive that speech), as in claim 28.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2-4, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barany.
US patent no. 6,584,085 (Barany et al) discloses Expanded carrier capacity method. It did not
specifically a ratio between said first and second parts of said available radio channel resource is
selected based on a network configuration as in claim 2; a ratio between said first and second
parts of said available radio channel resource is selected based on said first and at least second
user applications , as in claim 3; wherein a ratio between said first and second parts of said
available radio channel resource is 50%, as in claim 4. wherein the ratio between said first and
second parts of said available radio channel resource is selected based on a network

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configuration, as in claim 16; wherein the ratio between said first and second parts of said available radio channel resource is selected based on said first and at least second user applications, as in claim 17; wherein the ratio between said first and second parts of said available radio channel resource is 50%, as in claim 18.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention that the kind of ratio among channels would certainly be dependant on different factors such as network configuration , the current type of traffic (i.e., video or data) and traffic demands in the network and percentages assigned could have also been based on the system design , with the motivation of obtaining a method in which regions in which extra capacity is needed additional carriers may be added to the cell segments within the region, which may be a region having high bursty traffic conditions.

Allowable Subject Matter

8. Claims 10-12, 19-21, 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Please also notice objection to some of these claims under 37 CFR 1.75

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US patent no. 6,647,000 discloses a method of performing slot hopping of logical control channels.
- US patent no. 5,844,894 discloses a time-reuse partitioning system.
- US patent no. 6,229,796 discloses a Code-reuse partitioning system.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (703) 305-1121. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Douglas Olms**, can be reached on (703) 305-4703.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

6/29/04

Ricardo M. Pizarro

